

Sohn

121

Spt. 17, 1962

Pictures

- 1, 2 Bar Shava - Bedouins
3 Ein Gedi K 3-6
4 Kibbutz near Kibbutz Ein Gedi
5, 6 Kibbutz 2 houses
9-17-62-1 Gravel below Upper archaol.
excavation, pebbles for NIV
Matrix for ostr. Upper Lisan
Ein Gedi
9/17/62-2 Lisan near road cut at
ostr. Middle of air strip from Ein Gedi
1875-0964
9/17/62-3 Lisan Beach - C-2 shale
lower pt. C-2 section
Box 2 Which is 40M±

Jerusalem to Bar Shava to Stone
to Ein Gedi.

At Ein Gedi to spring, coll. like at
then to excavations, coll. Lisan
beach pebbles with matrix
On dirt rd. S. of Ein Gedi coll.
varved Lisan clay.

To Hm Beach up canyon
saw C-2 + coll. also varved
coll. oil shale.

Evening in Bar Shava

Bender
Y. Nir
S.

Sept 18, 1962

Machtesh Katan

9/18/1 # photo 7 or 8 showing hammer # 699
bottom 1'± of glauconite
No fossils
Discard

above Nubian ss.

pic 8-9 loc. above 9/18/1 looking W
bottom Nubian up to C 4 or C 5.

9/18/2

Top of C-2 with Gastropods all in
5' interval. Platy ls + sh. may be below
other part of C-2 with fossils

Shale in C-3 Yaakov Nir
MB 281

9/18/3

Rd out of M. Katan

Mafic layer of C 4/
171 + 040

9/18/4

Glauconitic sh. Nachal Tzafith

pic 10 173/045 "

on Turonian? Onyx Y. Nir & G. "Uzzi"

Onyx - 1745/0448

9/19/62

S from Ber Shecha to
1st rd. W.

9-19-1 Paleocene at rd. fork.

Nitzana - Elat. calcareous shale hard & soft.

N.134/053

pic 13 Cross bedding in Eoz. Ls.

1 PM contact Coord 008 333
110 TTpic 12 Nabatean field wide
walls and Arab? furrows

pic 11 from car Nabatean dam

" 10 small field Arab?

9 Beeraim outpost, religious group

pic 14 Nabatean ^{prob. Arab} bins for storage, ar windows

16 " bin at head of well

✓ 17 Geologists with guns

18 Hill above 17 looking N

on Eocene

19 - same hill looking S. Pistacia
trees not in their ecology: warmer before.

9/19/2

2 bags.

OST

Berot Kedem near Chapir

~~Gharb~~ Gharb fm. (Masturfa)near well. chalk with limonite
streaks. Wells dry, large well
with cat-tails. Coll. outcrop
above and slightly N of well.

20 Mezrot? same as 14.

24 - stuck radio truck

105 N - 013

9/19/62 p. 2

Left Bersheba in car and a tender with a radio and a sergeant to work it. Contact could not be made, so we stopped at Beerotaim a Nachal out of religious group. The soldier went to have the radio repaired at Nitzana - an army post.

Waited 2 hours at Beerotaim. The boys & girls soldiers were very nice argued as to who should watch. Girl went to gate with gun but no bullets. German shepherd watch dog - very mean.

Radio repaired went S. on loess rd. saw many Nabatean dams. Nabatean village not visited. On return trip tender (radio truck) stuck in sand. Pulled out and continued in dark to surfaced rd. Had to wait for tender to check out at security station - "quicker than by radio".
Arr. Bersheba at 8³⁰

5

Bentley
Moba
Nir

or Middle of K fm.

9/20/62

9/20/1

Top (Bariforian?) near ^{measured} section.
marker on top of cliff. Nuchal Tziporim

Section 62-5 measured

~~49-2~~ 11920/02760 on 1:20000
map.

9/20/2

Mennucha 27'± below ^{base of} ~~Top~~
Chert. 11915/02590

9/20/3

11800/02200

M. M. Eocene (Mez)

9/20/4

M. Eocene below Trans point.
same bed as echinoids
11540/02060

9/20/5

Weathered, down rd from 9/20/4
spalled from rocks at side of
rd. 100'± below 9/20/5 ✓

Director - Manager & Survey Geology
Shifts - Asst. Mgr. & head - Geology
Reiss - ~~Asst.~~ head Paleont
Dept. each Manager & Director C.G.
Branches.

7

Northern Galilee

Oct. 1, 1962

pic 14 2 N end of Kineret? Korazim
Taken from Stead-Rosh Pina Rd.

" 3-10 Hule fish ponds to N & W #9 & 10
line of section, 9 Nubian ss (Weald)
& lower pt of L Cr. S III a, cliff is
L Cr. S III b.

11-12 Lebanon boundary Metula
Sleep Metula - sick.

Oct. 2, 1962

pic 13 Outcrop cliff from town.

The Merara section consists of a draw that is very steep and shallow. A road leads up to base of draw where Nubian ss. crops out. Above the ss. are ls & marls to a small cliff and above that a sheer cliff "Blanche". On Oct. 1 we searched for contact with N. ss. (Wealden) and with cliff - could not find. The day was terribly hot. I started a "migraine" - spots before the eyes in Natanya. Bought "MIGRANOL" for 3.22 and took 2 tablets at 9 AM. The spots left but I was sick the rest of the day.

Oct. 2 returned to loc. below Merara. Took 2 samples of clay beds in Nubian and samples of soft Cr III a up the draw.

Oct. 2, 1962

10/2/1
pit 14Wealden, sandy clay above ss.
near lowest pt of exposure = MH 69

10/2/2

6" clay seam in Wealden ss 200' ± S. of #
35' ± above 10/2/1 taken at base
of Wadi of section, above place of well.

10/2/3 ✓

Aptian Lcr III a, within a few feet
above base. Contact with Nubian (Weald)
obscured but this is below a ls ledge
and is probably near the base of
Lcr III a. Wadi with section starts here.
= MH-82A, white ss. below sample

10/2/4 ✓

above 10/2/3 below Ls 2 1/2" at side of draw
= MH-91

10/2/5

Ls. above 10/2/4 (directly above) = MH 92
Ls 2 1/2' ±

10/2/6 ✓

Sh. = MH 95

10/2/7

Sh. below Ls = MH 101 above talus & below
Ls.

10/2/8

Sh below Ls layer = MH 114

10/2/9

= MH 121, Ss with clay intercalations
sample of clay hand picked from ss.
clay 2 mm ± thick

Oct. 3, 1962

Return to wadi below Menara to
continual section

10/3/1
Ostr.

clay + ls. about middle of small cliff
near top of L CrS IIIa = MH 137

10/3/2

Foss. ls. top CrS IIIa = MH 145

10/3/3
Ostr.

sand 20cm = MH 159

Oct. 4, 1962

Hammuli dropped a rock on
my head - walked to
Kiryat Schelomo and had
a metal clip inserted
returned to Jerusalem
7 P.M.

Nov. 13, 1962 Menchem Greenberg
Machitesh Hatlira (Gadol)

Lower Cretaceous

11/13/1

2nd sand sequence below clay
5' thick. = MG 142-144

11/13/2

base of clay above 11/13/1

11/13/3

Middle of sequence near top &
bottom

No

11/13/4

Top of clay

11/13/5

~~oo~~ Main oolitic layer.

No

1st. Marine intercalation
macrofossils = 278-279.

11/13/6

Bryonitid(?) bed 2 meters thick,
between two thin iron beds
at base = 290-291

No

11/13/7

middle of bed = MG 292

11/13/8

Top of bed = 293

11/13/9

1'± above 11/13/8 = MG 295
Marl clay about 18' thick
bottom 1 foot

11/13/10

2± meters above 11/13/9 = MG 300

Ostracods

11/13/11

2 m ± above 11/13/10 = MG- 307-308

No

11/13/12

Top of bed 2 m ± above 11/13/11 = MG 315-316

Nov. 13, 1962 p. 2

11/13/13 = MG 508 shale, below
3rd marine intercalation
pure marl

11/13/14 clay part(?) look for U₂.
= 3rd marine intercalation
MG 538 ±

11/13/15 Ls. marine fossils & well-bedded,
with gypsum to $\frac{1}{2}$ " veins.
common purple
= MG 544 ±

11/13/16 chalk lense in clay
No 5m. below main oolite layer

Wadi Halfa

11/14/1

Uppermost part of Jurassic

Marl + mega

Oxfordian Middle pt of Bes Sheba Ls. - Marked Bc

11/14/2

Marl below Topmost

coral zone about 3' above white ls.

11/14/3

Sponges in marl below coral bed

11/14/4

Marl with megafossils 25 m. \pm below Top

11/14/5

Brachiopods? 1 m \pm below

11/14/6

11/14/4 clay cut near dirt road

about 40 M below Top of cut

L. Cret.

1513 / 0388

All above ^{are} Bes Sheba Ls.

Tiberias

Dr. J. Lorch
Baida
Tamar

Discarded Dec. 2, 1962

Pict. 1 (=11) Knife bet 3 & 4

Pict 2 (2) looking W 3 to 5 (5 is yellow)

" 3 = (13) going to 1

" 4 (4) hammer on bedding plane near

base of 13

5 ditch

6,7 hammer on 12/2/11 + 2nd at plants

12/2/62/1 Sample across ditch

from pict. 1(11) = 2 & 3 of Baida
of Trench 312/2/62/2 on top of 1 = 4 of Baida
side of picture

12/2/62/3 = 5 of Baida above 12/2/3

12/2/4 = 6 of " " "

12/2/5 = 8 III b-7 Baida12/2/6 = 9 III12/2/7 = 11 III

12/2/8 = Gray zone in 13a

12/2/9 = 16

12/2/10 = 23 above artifacts in #20

12/2/11 = 21 lens above grave

Dec. 3, 1962

- 12/3/1 Water from L. Tiberias
- 12/3/2 Clay on shore & bottom of L. Tiberias
at Ohalo - where I stopped -
last 3 pictures from Ohalo
- 12/3/3 Pliocene, Top of basalt Ridge on
the Tuff road. Oriented blocks
with approximate upper pt. of
Plioc. oolitic ls.
- Pict. 1-3 - Plant loc. = 14 of Trench 3
- 12/3/4 = 53 of Trench 3
- Pict. 4, 5 Syncline N side Trench 3 E of 14/3/4
- 12/3/5 Oriented bed 11 near top dyes W 87°
- Water sample without label
from fish pond.
- 12/3/6 Lisan W. of Beit Zera

Dec. 10

- 12/10/62/1 Lisan rd. to Sdom Irish Bridge
Nachal Tamar
Most sample from clay just
above river gravel and below 1' ls. bed
1807/0441 50'-75' from road.
- 12/10/62/2 Clay on Sdom-Ein Gedi Road
100 meters SW T end of Gas pipe
at Bromine Plant
approx 20' below the white V. Lisan
probably M. part of Lower Lisan
1850/0496
- 12/10/62/3 Cross bedded truncated Lisan? or younger
1862/0509 foothills of Mt. Sdom
near Pum Pump house & Black House.
- 12/10/62/4 Live ostracodes from sulphur
springs near Ein Charrei 20m
- 12/10/62/5 Lisan? or older under large
sized boulders of Recent age.
S. of Ein Bagan
Kilometer stone 20.5 from
Sdom.
- 12/10/62/6 Lisan filling old River Channel
Nachal Mor 5' bedded gypsiferous
marl about 200 M. from road, not
far 200 M ± E of Main Fault.
1850/0739
- 12/10/7 Lisan, near old springs 150 M S of
Sdom Ein Gedi Km 43
reworked.

Dec. 11, 1962

12/11/1 $1\frac{1}{2}" \pm$ yellow grading down to brown clay below $\frac{1}{4}" \pm$ gray layer

12/11/2 $1\frac{1}{2}" \pm$ yellow and gray below

12/11/1

12/11/3 $2" \pm$ darker laminated below

only

12/11/2

 } 12/11/1

 } 12/11/2

 } 12/11/3

12/11/4 Alternating Gray and yellow
ostr. 6" about 6" above 12/11/1

Pict 10-12 Lisan where ostr were found

" 13 El Gedi Spring Live ostr.

Small sample

" 14 David Spring, large sample.

12/11/5 Clay in center of Quarry just
No fossils E of Dimona - may be Hatceve

Timna mine

Dec. 16, 1962

12/16/1

Shale in lower variegated
Nubian ss. LE — Gromkhu.
3" + in ss.
Trias? or younger

12/16/2

6" bed of shale in adit,
strat above 12/16/1

— copper ore in upper level

Dec. 25, 1962

Jozk Bet Avot (NE of Tel Aviv)

12/25/1

~~Disc~~ 12" hole in front of Dining Room
about 6' below surface, sand
below ~~yellow~~ Brown Top soil
Probably a sand dune.

1/16/63

1/16/63/1 Maditash Gasol

1/16/63/2 12 m \pm below 1/16/63/1

1/16/63/3 old cut opposite Abu Sir.
Bentonite on top of ~~clay~~ sand
Albian.

U

U12

1 6' \pm sand near top of sequence
above - 2nd marine intercalation

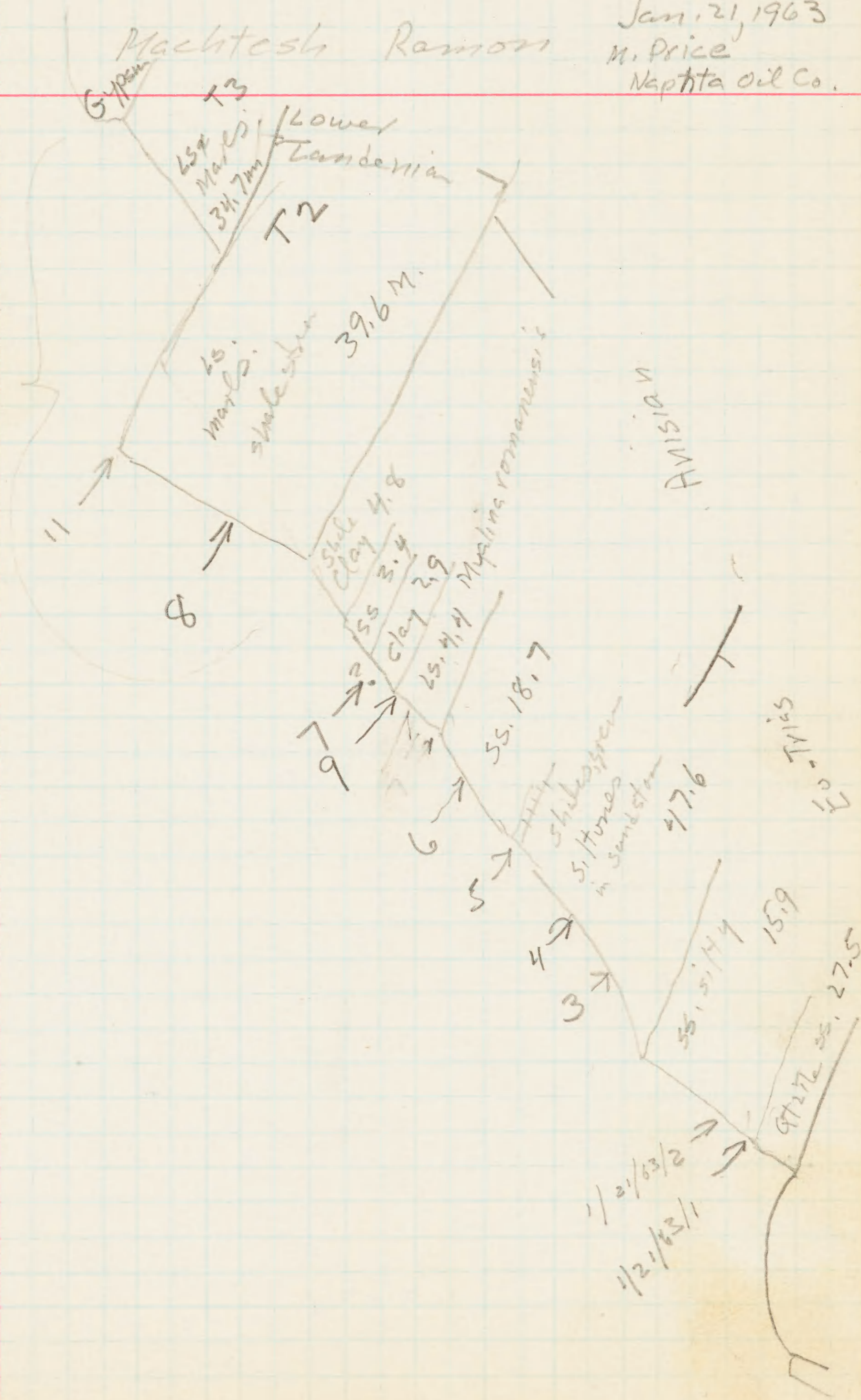
2. Bentonite, Albian, 0395/1522
same as 1/16/63/3

P. 1

Jan. 21, 1963
M. Price
Naphtha Oil Co.

see Zak's section for details

looking N.
p.d. 8 T3 looking W
p.d. 9



- 1/21/1 Bottom pt. sh. kadiak etc (15 m. 82)
 A. to Levinson 11/1963
- 1/21/2 Green 6.4 m.
- 1/21/3 Ls. point 12 interbedded with ss. sh.
- 4 about 7' above (3) sh. variegated
- (5) Laminated Ls. point 18 f.
- ~~Discarded~~
 Ostr. 6 Ls. Gaster. pt. 23
- Acid(-) 7 Ls. above (6) foss. in shale sequence.
 Wash Ostr. 15' ± above pt. 23
- 8 Ls. with brachs & Gaster. (point 24)
 Acid(-) ^{Terr. Diakasma julica}
 Wash Ostr. on top of ridge near stake, 2 bags.
- 9 Top of Miocene, not in line of sec.
 reef. weathered on dip slope
 1382/9995
- 10 Middle reef 79 ± 5' below 9
- 11 Top of Ls. sequence point at station X
 Discard blocks in big bag

Jan. 22, 1963

p. 1

Starting T. 3

pict. 9, 9

- 8 West dipping T2 & T3
9 - Looking W on T31/22/1
posting
etch.Massive ls. in wadi. Top of Vermilion ls.
plus weathered just above bed. point X21
T3 6.0 m. above base of T3 on section.

1/22/2

Weathered 2 m \pm below point 27 ls. 5.1 m
below w. 5.1 at 200 m on sec.

1/22/3

Massive ls. gray pt. x28

Discard

= Zak #5

1/22/4

Platy red ls. in road 1' \pm above
station X bet. 1/22/1 and 1/22/2
0.5 m. of xylene ls in section

1/22/5

Massive ls. just below 1/22/4 on st. X

Discard

1/22/6

foss ls. above 1/22/4 point X-26

1/22/7

ls. point 31

1/22/8

ls. pt 33 above "enclinalis" ls

(1/22/9)

Marl pt. 34 Missing

1/22/10

ls. 2' \pm weathers red points 35-37

Pict. from

1/22/10, 10-13 looking E 14, 15 W. break where you
see rd.

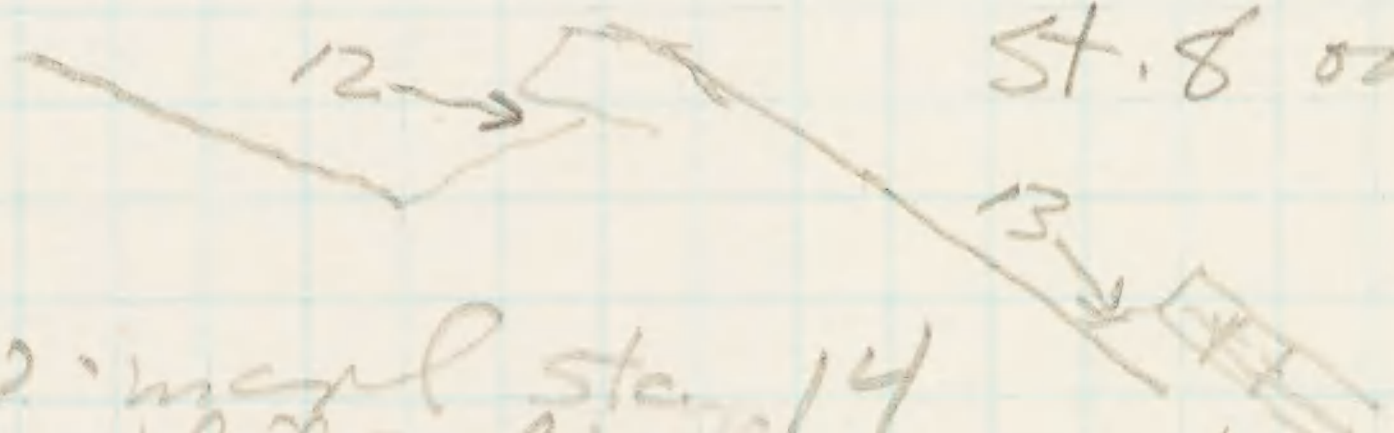
1/22/11

Green sh. & overlying ls. point W. 3
forms dip slope

Jan 22, 1967

P. 2

1/22/12 Soft above (11) below thin
ls. St. 8 on ls



1/22/13 yellow marl Sta. 14
below platy ls. or gray dense ls.
below 279.3 M of section T 5
Carnian.

1/22/14 Base vermicular ls. St. 16

1/22/15 Brown gyp. mudstone point 29.

1/22/16 Station W. cruddy ls. + weathered

1/22/17 Marls immediately above the gypsum
of the Quarry above ~~12/2~~ 1/22/16

16#17 in N. of Gyp. fm, but
above gyp. of Quarry

Machtesh Ramon
Feb 10-12, 1963

Plants Neck

2/10/1
Box 2

to Cooper

2/11/1
Ostr.
T 2

Brachs we collected near
contact with magmatic
intrusion at pct. 138/9988

2/11/2
Ostr.

Plants base Trus 138.5/99945

2/11/3
Ostr.
Box 4

Zone 5 of Ranfa, Turoman
1382/99814

2/11/4

Ls. above Gypsum vein & soft
stuff above ls + anhydride W. of rd.
1st. Trias? about 10' above rd.
interbedded? or slump on stinkstein
1376/0010 = T7 (Type section)

2/11/5

Middle Jurassic continental
Lakes alternating Iron beds
with plants, white wind blown
clay, sand, again sample
of Ironsand & ironstones with
plants 135/005

2/11/6

Lowest red. marine fossil.
layer Jur. above 2/11/5
Bathonian

2/11/7

Lithogr. ls. foss. in dolomite, above
Bathonian?

2/11/7

2/11/8

sandy marl on dolomite
Marine L. Cr. intere
133/ 1325/0037

8/11/14

6/11/14

3/11/14

2/11/14

6/11/14

1/11/14

- 2/12/1 Marly gressa
 058 Box 4 Lias, above flint clay
 in main mine.
- 2/12/2 Pleistocene scumple
 in wadi after picture
- 2/12/3 Red gressa channel
 section 4 from Talus
 near dike
- 2/12/4 Top of red gressa, Nemidh
 zone near dike
- 2/12/5 calcarenite Top of Trias, below
 flint clay Nachal Ardon
- 2/12/6 oolitic ls. wedge on Gypsum
 coll. below Ls & Ls. ~~U Trias~~
~~Wadi Ardon~~
 top of Marly sequence. (Jurassic)
 Hill in Wadi Ardon
- 2/12/7 12' ± below 2/12/6 = U. Trias
 Equir to Gypsum = T7
 North side
- 2/12/8 T1 E end of Rm (contains with
 Cret.)
- 2/12/9 Weathered with crinoids Trias
 T2 - T4? prob. T2
 (Har Saaromim)



2/12/10

Marley Crest a
W side of main road

2/12/11

1st Marine intercalation
on Rd to Mitze Ram
red ls. and marl on top.
Call. green Marl



Menarc
March 19, 1963
Copy of Oct. 2, 1962

10/2/2 6" clay seam in Nubian

10/2/3 Below LS. ledge, above white ss. (left side)

10/2/4 above 10/2/3 below LS, 2 1/2" on rt side of draw.

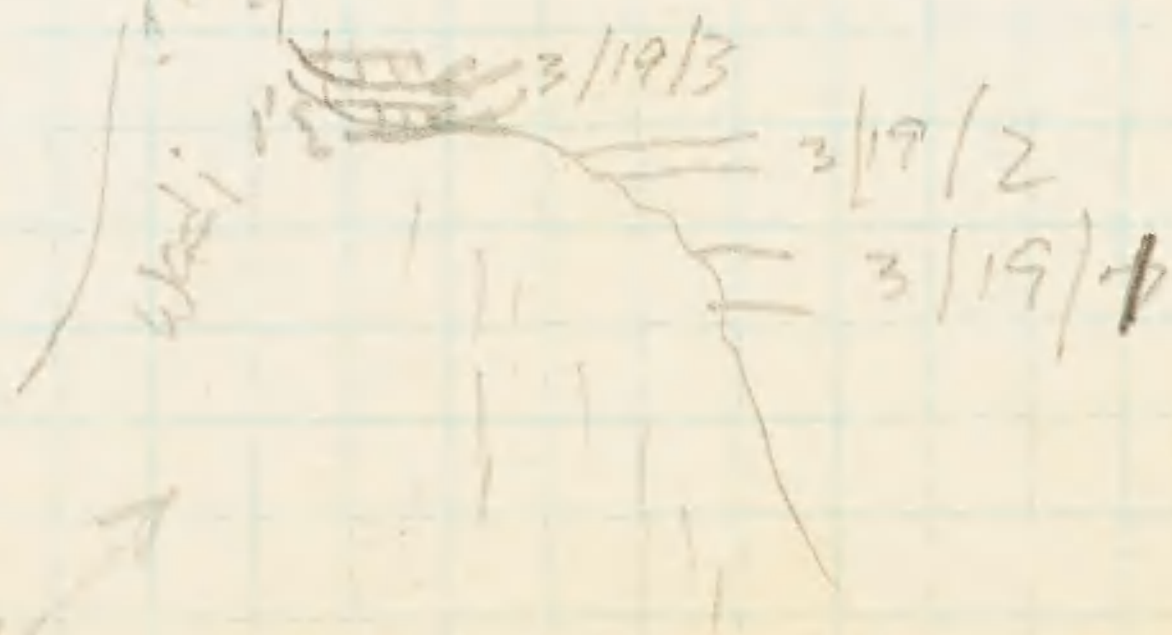
Joe Berman roll 5 film 30 of
3/19/63/1

3/19/63/1 Channel sample 3'± of wet
brown clay, N side of draw
Ostr
10'-15' above nubian ss.
50% HCl soluble

3/19/63/2 Yellowish harder stuff 1'±
Ostr.
above 3/19/1
Picture 19 of bag at level of sample

3/19/63/3 Pic Hammer above bag on sample
3'± layer between LS just above
Ostr also some of LS below 1'±
3/19/63/2

Pic 20 - from below
showing cuts of 3 sample



(over)

point X 20

The slope above medium sandstone
 is. above the sand is 10-15 ft
 wet greenish clay (sample 1) overlain
 by yellowish mottled 2-3' (sample 2)
 and harder yellow mud 25.
 (sample 3)



Mt. Carmel

Vrohman

March 20, 1963

3/20/1

ostr.

Middle Cenomanian Chalk
 "Cz" on rd. between Radar Station
 and the village of ~~Esolia~~ Isfya
 on roadside exp. top of Carmel.

Radar Station x loc.

→ Isfya

3/20/2

ostr.

Dahliq marl (L. Turonian) S.
 of town of Dahliq near rd. old pits
 marl b'w low base Turon.

3/20/3

Road bet Bat Shalom to Zikhron

Yaakov. Quarry in Paleocene(?)

S. of Shefeiya on map. mapped as

Senonian. Quarry S. side of

Rd. W of large Quarry which
 is ~~at~~ of Rd.

3/20/4

Box 4

Wadi Shalala below Kibbutz

Beit Oran. M. Cenomanian interlayer

x 1/4" ls.

with Rudistids. Silicified

Makletsh River

In Zak

March 27, 1963 P. 1

3/27/1

ss. ~~from~~^{near} base of second member
 Lowest foss. bed. below it
 Bio strata T1 - 27.7 m g sec.

3/27/2

Silty ss. & sh. above 3/27/1 separated
 from ss. by red sh.; Above this is
 a sequence with wood, sh. & ss. variegated
 T1 - 28.2 m.

3/27/3

Thin foss - like in shale with *Myophoria*
 found *Placodus* Tooth & *Hera* T1 - ~~78.5 m~~
 bag & hammer on call. 3/27/3 53.7 m

Pict 8 -

3/27/4

Prob weathered *Beneckia* layer or
 just below that layer
 highly foss. ls. T1 78.5 m

3/27/5

First hard ls.; top *Beneckia* member
 shale just below. sample of sh. & ls
 overlain by x bedded ss. T1 - 91.3 m

3/27/6

Shale, base of T2, Nylon bag
 or very top T1 126.0 m

3/27/7

foss. ls. with limonitic bands & sh. thin
 seams above and below,
 sample of weathered ls & sh. 131.0 m T2

3/27/8

Mepl strait above 1/21/8 at about same
 place Middle T2, 149-151 m.

3/27/9

Large fossils float shale of 3/21/8
 below wavy ls. horizon T2 145-147 m.

Pict 9

" 10

" 11 -

12

on 3/27/6 looking E. Mostly T1, Top is T2
 Top of ridge west of 3/27/9 - N to T5 loc (1/24/13).
 Slope of 1/21/6-8 from below
 " 3/27/4-7 from SW looking N

3/27/63 p. 2

10 — T5, near base 258.6 m of sec.
13753/00003

11 — T5 260. m of Type sec.
13752/00004

12 T5 261 m " "
13752/00005

13 T5 262 m.
13751/00007

27/14 Hingra Anticline, just below point (A)
≠ Loc. 1 2/12/9 T51
1 1/2-2 miles below Lower
16 4/9 MT. Sa'haronim
very micritic.

8 miles above base of T5
Pict. 13 Cliff of 3/27/14 from SE.

3/27/15 Immediately below Top of T4

3/27/16 Fossilif. ls. Zak's sketch of 15
U. pt. T2 ≠ 154 m of Type sec. 14395/00121

Pict 14 L. Cret. marine sample with
Buiton when it rained

Pict 15 L. Cret. - 15-2nd sample with Yaloz.
16-19 M Godel from W to E

April 2, 1963
M. Goldberg

4/2/1 Ls. about 14m above base
Box 4 Type sec. bed 62/2/6A

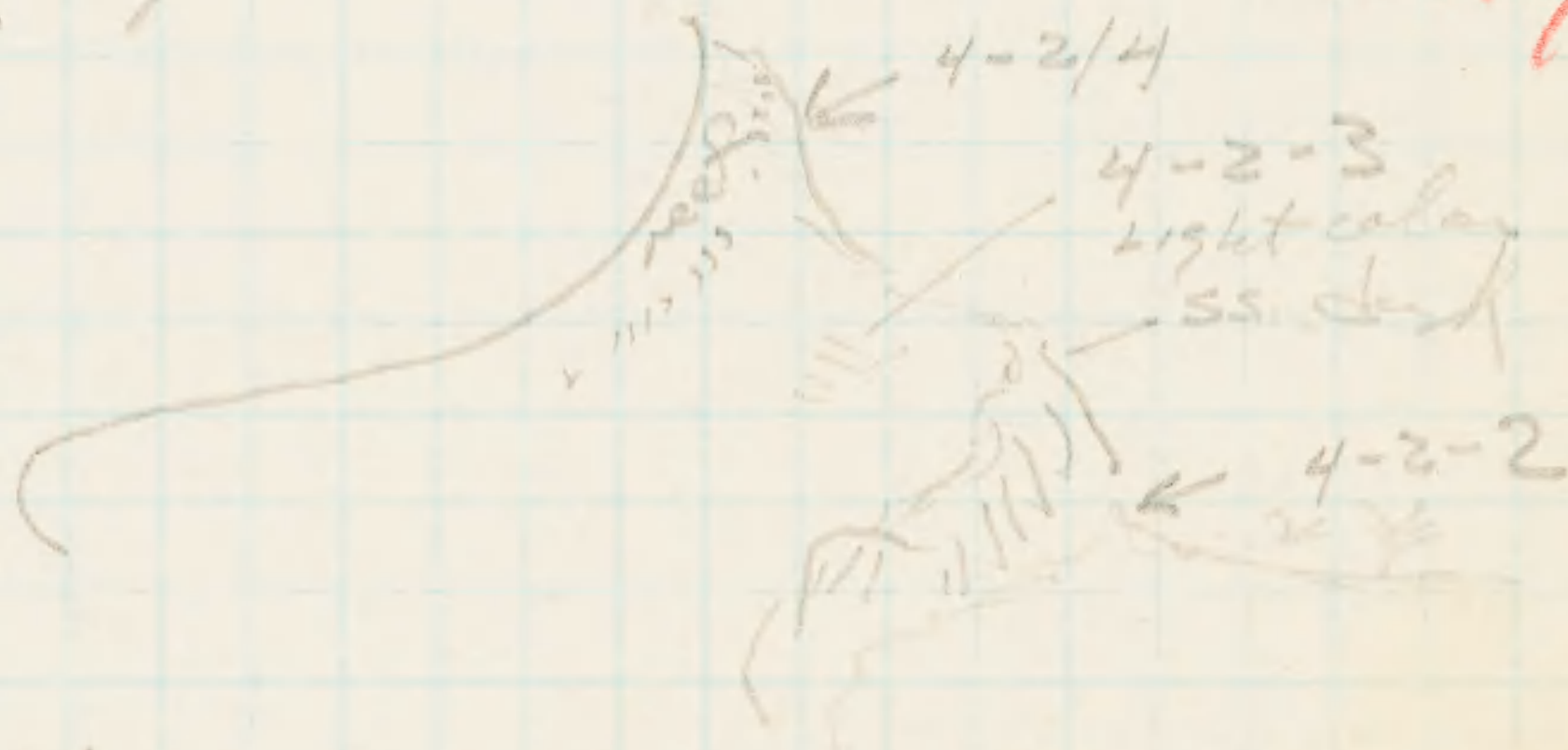
coll. brachs corals and
weathered stuff representing
30'± of wash ~~Cooper~~

4/2/2 Near Kurnub 2 Type sec. bed 62/2/2
Box 4 shale with ostracodes lower
part of sh. 2B to 2D of section

4/2/3 above 4/2/2 Bed 62/2/6
Box 4 Brachiopods, snails, crinoids?
~~Megafossils~~ To GACooper

4/2/4 Marl Israel G.S. type section 62/2/10
Box 4 Reef develops above this ~~no Megf.~~
horizon -

Picture
Blew. 1 cloud lost 2



4/2/5 More chalky facies of lithographic
Ls. above reef 62/2/26 b
2 pelecypods float from above
marked in black ~~no Megafossils~~
~~Cooper~~

4/2/6 Megafossils IGS type 62/2/75-76
[may be wrong on Field label] ~~Cooper~~

4/2/7 1 km S. SE of Main type sec. line
Box 4 ≠ 62/2/126-133 - cyclic soft & hard
Pictures Virgin loc. Almost base of Zoar shale
To Cooper

April 2, 1963
p. 2

- 4/2/8 Top of 62/2/102 on section
at base of Bar Shale Ls. - Top
Zoar Shale - Microfossils
- 4/2/9 Bar of Silicified corals &
Box 1 large gastropods - maybe bryozoans
has silic. oysters in Bar Shale
Ls.
- 4/2/10 Base of Zoar shale 62/2/142
Ostr. area 200 meters down hill junction of TPK
Rd & Main Rd.
- 4/2/11 L. Cret bottom part
Discs Brown & green
- 4/2/12 L. Cret, Upper pt. Green, bryonitic
Dried 15 m ± above 4/12/11
samples just below
pseudotrees.
- 4/2/13 First Marly layer in Commanche
Box 1 going out of M. Hatcher at
Pic. 4/15 bend in Rd.

with I. Zak
Ramon
May 2, 1963

5/2/1/63 10 cm± just below Gypsum

5/2/2/63 70 cm± below 5/2/1 has
some gypsum in it. Channel
sample

Pict 4 col. 100 W. hammer just below gyp. F8/1000/F16/200
5/2/3/63 Dolomite ^{stale} & marl interbedded
with gypsum, above 5/2/1 weathered
dust and thin pieces to 50 cm. above
gyp. 3 cm. to 5 cm. thick.

5/2/4/63 15 cm. Tan ls. above thin
gypsum seams and above blue
& red shale. about 3' below 5/2/1
same outcrop to W. 1/500 F.16

5/2/5/63 bottom 2" of foss. Ls. weathered.

5/2/6/63 0.6 m. channel in shale below 5/2/5
sh has gyp. stringer

5/2/7/63 sh. above Ls. 7 5/2/5/63

1/1000 F.14 #13 loc. 5/2/7 ls. above Zuch's shoulder
1st cal. scarp with U. Trias. ostr. zone coll. 5/2/8 -

5/2/8/63 yellow marl below ls. - T5

5/2/9/63 ≠ 3/27/12913; Channel sample
at E. scarp

5/2/10/63 259 1/2 m. below 5/2/9 nested valves

May 2, 1963
p. 2

- 5/2/11 Same as 3/27/63
Red + blue shale below
weathered LS.
- 5/2/12 Rotten LS. just above (5/2/11 = 3/27/63)
- 5/2/13 Sh. above 5/2/12 above white ss.
- 5/2/14/63 Shale in T1 between
& below organic ls.
- Bl. 15 cl. 6 FB 1/4500 Flk 1/4500 Ec. 5/2/11-12



- Pl. 16 rd 7 overturned Turbellaria L. E. Ransom
- 5/2/15/63 Green shale above Starkstein
Discon. T-7. rd N 7 Gyp. plant
- 5/2/16/63 Black friable ls. above 5/2/15
- 5/2/17 Starkstein ls. above 5/2/15 is plain
yellow ls. below 5/2/13; dark ls. more
ls. from 5/2/13-15

E. W. G. J.
May 7, 1963

5/7/1/63 Temporary pool Rd. Rash Zone -
E. W. Baker

Discarded Nothing

5/7/4/63 Learn Wadi at Matsada
1 1/2 km. E of M. on road
direct road to restaurant
6" just below surface group
on N side of Wadi

5/8/1 2 jars Mason May 8

5/8/2 bag from pool (lower) below
den

5/8/3 30^{cm}-40^{cm} above 5/12/11/1
Bl. & W.

5/8/4 same as 12/11/4

5/8/5 3" just below 12/11/1

5/8/6 25 cm below 12/11/1

5/8/7 Matsada - cross bedded.

5/8/8 above crinoid W. of 5/8/7
1 1/2' + channel.

Pict. Darnley

MS p. 2

5/8/9

Same? 12/10/3
 Cross bedded gravel
 with $5'' \pm 7$ finely varved
 about 7' above rd. level
 gravel also below.

2 bags. NW Wood house.

5/4/10

Similar layer S. of Black
 Wood house.

Pict. Denny

Living Ostracodes

Ein Gedi spring live Darwinula with black spots, 10 eggs
shells - Ilyocypris, ?, ?

Lake Tiberias, Live "Goeslichia" Darwinula brown spots
shells Ilyocypris
One Darwinula suspended 20 hrs. on film
of water, still alive.

Fish pond near Tiberias - Live Cyprid.

Jordan Riv. Nir, Dec. live Ilyo? + Potamo? + Cyprideis?

Darwinula

Salts of Kinneret in same proportion 30 parts
per litre = sea water

Darwinula	died	in 24 hours	in 30 pt / litre
"	lived	2 weeks plus	in 15 pt / litre
"	lived		20 pt / litre
"	lived		7 1/2 pt / litre

Naples

6
5/14/1

1 mile W. of Ischia Port
Pleistocene. - Segnara
type loc.

I.G. Sohn

TRIASSIC

Paris Basin

with M. Guillaume

July 17

Met 2.

July 18, 1963

7/18/63/1 Ceratites bed clay seam + ls.
 Rd cut rd # 4 N of Bebing gr. to
 Saarburg (E side, S end, near rd. on map) about 20' below top.

✓ 7/18/2 Quarry Top of Volcia - L. Muschel
 Gress coguillier 1 foot above
 limit clays
 ls. with volcia and top of

✓ 7/18/2 Quarry from coll. loc.
 Pit 3 - coll. loc.

Base of Murchell (lower) (2) coll. → dolomit. sandstone
 Top of lower turn (3) → yellow dolomit. clays
 Volgian → gray clay } limit
 Horizon → red clay } clays
 Falsburg quarry & Dammelsburg

✓ 7/18/3 above & below limit about 1' below
 7/18/2

7/18/4 clay & ss 2'± above 7/18/2

7/18/5 Rd N of Mittelbrunn 1 km. S of rd.
 prob. from field Base of Wellenbach
 Pit 4 - coll. from bank on rt. 100'± S of car. Muz
 Muz 20

No 75 Blatt Pfalzburg - Germany has
 Geology of above area

Muschelk.

Tylio
France

↑ 18 m

7/18/6

M. of lower

Muschelkalk

July 18, p. 2

Wellenbühl.

Myacites beds

50'

(15 m)

Sandstone

7/18/6 Middle

Myacites beds

with crinoid

clay streak

from dolomite

Terebratula zone

Veltgum

N of

Siewiller - new road bldg.

side of rd. Pict. 5 & 6

Rd. 69 on map.

Pict. 7 Sarre-Union distance

Muschelkalk landscape

Lingula beds at base of 7 m.

Trochitenkalk (Calcaire à Troguet)

= Top Middle Muschelkalk

Ceratites zone about 7 m above base

contains macro fossils

1st clay above Trochitenkalk (Crinoidal)

7/18/7

Pict. 4

7/18/8

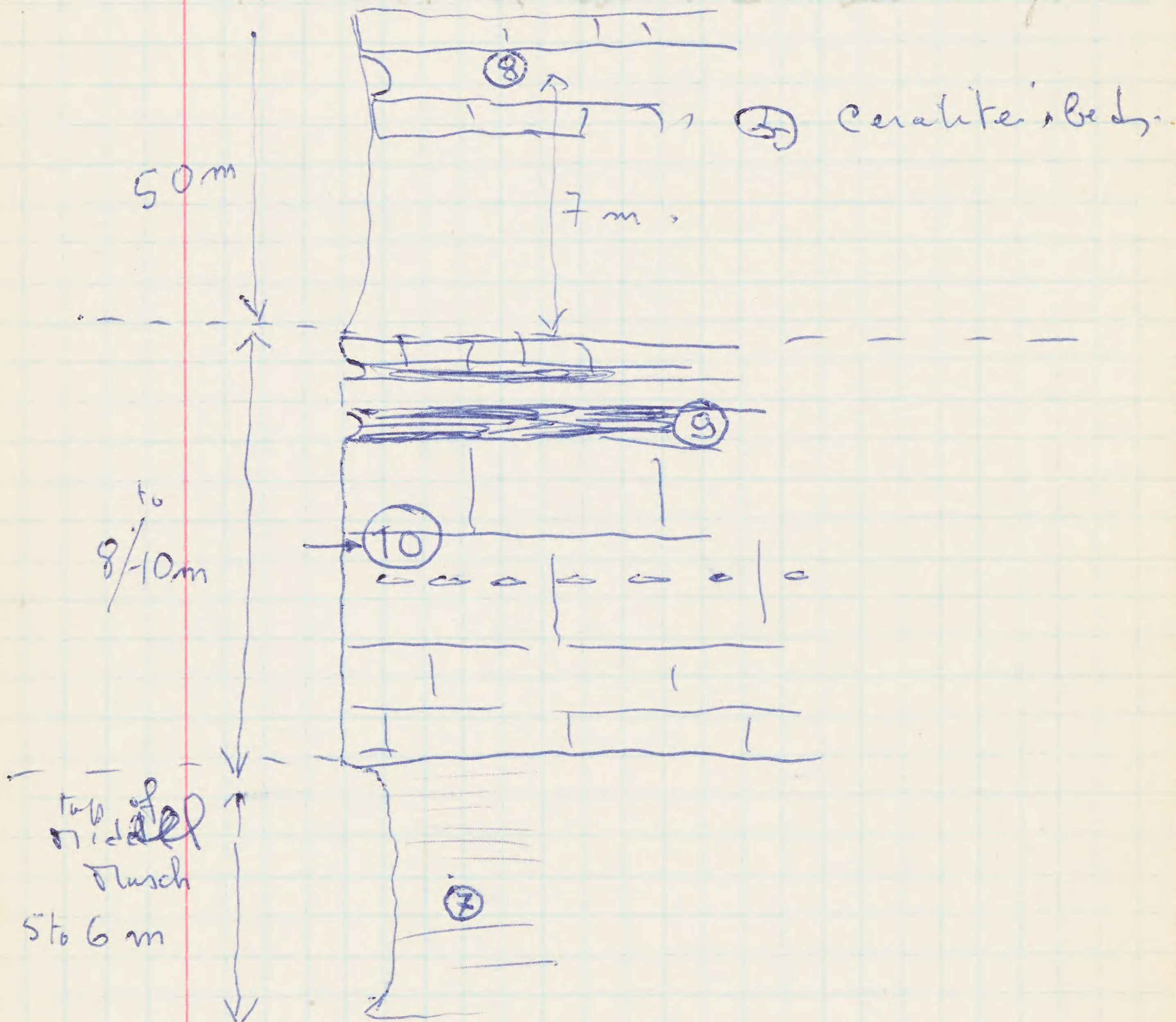
05871

7/18/9

Trias, France

7/18/63 p. 3

7/18/10

oolitic layer in Middle of
Trochiten Kalk about 3 m below Top

7 to 10 Zetting, N end of village near
restaurant, cut for parking place
is coll 7/18/7, 8-10 above
pict 8, 9 coll 7 on 8, coll 10 above pict 9
pict 8 pict 9

Trias, France

7/18/62 p. 4

Pic 10, 11 Maginet line

7/18/14 Carrières zone in Quarry
Sg Maginet line

Witting Quarry

7/18/12 Middle pt of Lettenkohl
S.E. end of Kleinchevilles
(Petit Eberville)7/18/13 About 4 m. above 7/18/12
Lettenkohl

W side of Klein Eberville

✓ 7/18/14 Just above Lettenkohl, base
of Keuper in Severn Trench
at Hallmont Versheck7/18/15 Marl at Top of Lettenkohl
1' below 7/18/14
Pic 13-15 detail across✓ 7/18/16 RR cut HTBL NW Faulquemont
Terebratula Kalk
ostr.

1 m under Top of Merschelkohl

✓ 7/18/17 Marl below 7/18/16 west end of
cut 5 m under top
ostr.
Pic 16 & 17 RR cut

Trias, France

7/14/18

Ls. just above 7/18/16

7/18/16 in weathered

just below 7/18/18

This is top of Muschelkalk
contains Mioporia ova

Met

Dr. M. Guillaume son of
Louis G. in Hotel Carlton
Mets at 7⁴⁵: Drove to
Pfalzburg, Trias is rolling
topography (see photos),
and exposures are poor.
A few road cuts, several
quarries, 1 one sewer
ditch for new house, and
one RR cut were visited.
At least one sample from
each M. Trias was collected.
Arrived Mats RR at 7⁵⁶ PM,
in time to catch 8:03 train
to Paris.

Mr. G. talks to himself.
He promised to ship all
but col. 6 to the U.S.
sent regards to Cliff May.